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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,151	08/28/2001	Eric Chapoulaud	ORM-156CI	4585

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EXAMINER

BUMGARNER, MELBA N

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/941,151

Applicant(s)

CHAPOULAUD ET AL.

Examiner

Melba Bumgarner

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 50-62, 84 and 111-119 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 50-62, 84 and 111-119 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/11/05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 114 and 116 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe the limitations of the feedback information as claimed in claims 114 and 116.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 50-62, 84, and 111-119 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claimed invention is a method of providing a custom orthodontic appliance. Claim 111 claims only the limitations of communicating information of teeth, displaying images of teeth, viewing images, communicating feedback information, and providing the appliance. It appears that “providing a custom orthodontic appliance . . . in accordance with the feedback information” is incomplete.

*Claim Objections*

5. Claim 51 is objected to because of the following informalities: recitation of “the person” and “the display of the feedback information” lack sufficient antecedent basis. Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 50-57, 84, and 111-119 are rejected as understood, under 35 U.S.C. 102(e) as being anticipated by Chishti et al. (5,975,893). Chishti et al. discloses a method of providing a custom orthodontic appliance for repositioning teeth comprising communicating three-dimensional information of the shapes of the teeth of a patient; displaying images of the teeth on computer display in suggested tooth positions and orientations that are based on the information; viewing the displayed images; communicating feedback information in response to the viewing; providing a custom orthodontic appliance (column 5 line 25 – line 67, column 6 line 50 – column 7 line 4). As to claim 50, the viewing is by an orthodontic practitioner, and feedback information of changes to the suggested tooth positions and orientations (column 6 line 2-10). As to claims 51, 52, 57 and 84, the method comprises providing the practitioner with a computer interface and displaying the images, providing the interface with a capability for the entry by the person of the feedback information, the feedback information includes information of changes to the suggested

tooth positions and orientations, redisplaying images of the teeth in tooth positions and orientations revised (column 5 line 49). As to claim 53, the three-dimensional information may be derived from an impression of the teeth from the orthodontic practitioner, and displaying the images of the teeth is in response to data digitized from a model of the teeth made from the impression (column 5 line 41). As to claims 54-56, the method comprises communicating information to a remote computing facility, work station, of the derivation of the suggested tooth positions and orientations, displaying the digital images of the teeth on the computer display, communicating to an orthodontic appliance manufacturing facility having equipment for manufacturing the appliance, data that includes the three-dimensional information and information regarding the tooth positions and orientations, and receiving from the manufacturing facility the appliance for providing the appliance to the orthodontic practitioner (column 14 line 36, column 15 line 1). As to claims 112 and 114 as understood, the showing of final tooth arrangement being generated indicates the feedback information including approving of tooth positions and orientations.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 58-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chishti et al. in view of Andreiko et al. (5,368,478). Chishti et al. disclose a method that shows the limitations as described above; however, Chishti et al. do not show establishing digital

communications link between a computer terminal and a digital computer at a remote location, transferring the information to the remote location, and deriving with the digital computer the suggested tooth positions and orientations. Andreiko et al. teaches establishing digital communications link between a computer terminal and a digital computer at a remote location, transferring the information to the remote location, and deriving with the digital computer the suggested tooth positions and orientations (figure 1, column 22). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Chishti et al. to include the steps of Andreiko et al. in order to allow the orthodontic practitioner to make the diagnosis of the condition of the patient and the treatment and have the analysis and design by such specialists in view of Andreiko et al. Chishti et al. and Andreiko et al. show entering commands accepting tooth positions and orientations at the computer display. Andreiko et al. further shows communicating the commands to the remote location and processing data the digital computer, transmitting data of the appliance designed or redesigned from the remote location, displaying images of the data on the computer display. Andreiko et al. teaches a method of providing custom orthodontic appliance having positioning jigs having surfaces thereon that conform to the shapes of the teeth, locating the jig on the tooth and positioning and bonding the appliance on the tooth (column 6 line 43) so that components of the appliance can be secured to the teeth at the precise position and orientation in view of Andreiko et al.

#### ***Response to Arguments***

10. Applicant's arguments filed March 14, 2005 have been fully considered but they are not persuasive. The prior art shows the limitations of the claimed method steps. It is believed that a teaching of "observation of the image" is in fact the same as viewing the displayed images.

***Information Disclosure Statement***

11. The information disclosure statement (IDS) submitted on May 11, 2005 has been considered by the examiner with the exception of Other Document AT, which has been crossed out, because the submitted copy was illegible. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melba Bumgarner whose telephone number is 571-272-4709.

The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached at 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, reading "Melba Bumgarner".

Melba Bumgarner  
Primary Examiner